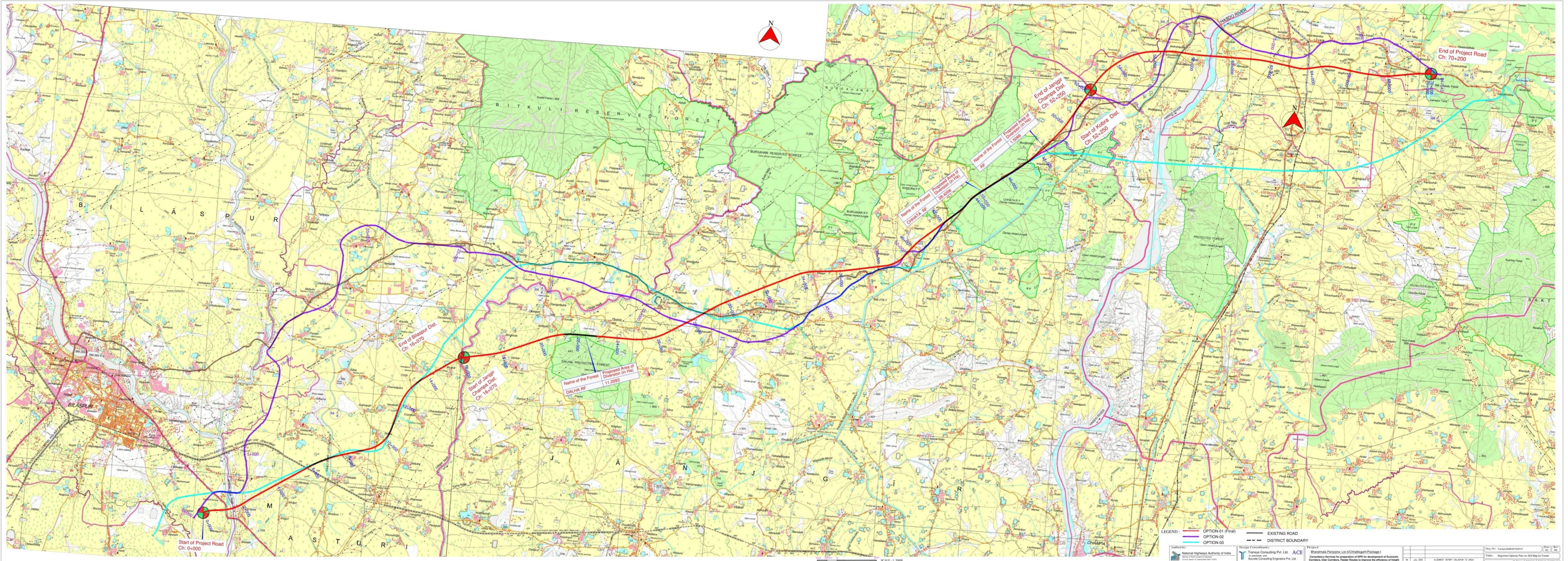




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Criteria for Fixing Alignment for Economic Corridor

1. The Economic Corridor between two terminal stations should be short and straight as far as possible, but due to engineering, social and environmental considerations some deviations may be required.
2. The project should be constructible and easy to maintain; the Greenfield project should reduce the vehicle operation cost with respect to the existing option already available *i.e.* using the NH/SHs in combination to reach from point A to point B.
3. It should be safe at all stages *i.e.* during design, construction and operation stages. Safety audits at each stage should confirm the same.
4. The project initial cost, maintenance cost, and operating cost should be optimum so as to be considered economical with respect to its options.
5. The alignment should be finalised giving due consideration to siting/location of major structures including Major/Minor Bridges, Interchanges and ROBs. The space requirement of interchanges to be kept into consideration to avoid major resettlement.
6. Tunnel / Box cutting of Hills should be considered as the last option and should be provided only when it is absolutely necessary.
7. The location of spurs for connecting the important towns to be decided while fixing the alignment Options.
8. The alignment should follow the unused / barren land to the extent possible to reduce the cost of land acquisition.
9. The proposed options in the present case connects the under developed regions of Chhattisgarh which would lead to the development of new growth centres along the proposed highway *i.e.* paving the way for economic development of the region.

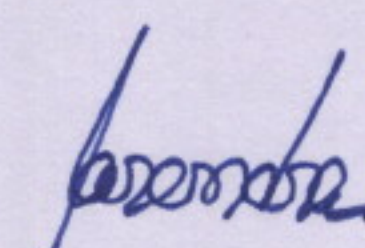
Obligatory points through which alignment options should not pass are detailed below:

Habitations: Proposed alignment is fixed in such a way that traverses at a minimum distance of 150 m from built up areas and avoiding important buildings and structures. However, few isolated buildings falling along the alignment cannot be avoided due to Geometric requirements.

Wildlife Sanctuaries, National Parks, Reserve Forest and other Eco Sensitive Zones: The proposed alignment doesn't pass through any Wildlife Sanctuary, National Park and other Eco Sensitive Zones. However it passes through Revenue and reserve forests. Utmost care is taken while fixing the alignment near forest areas. The MOEF&CC guidelines have been adhered to and the alignment has been fixed keeping it away from any eco-sensitive zone. It was not possible to completely avoid the reserve forest areas. However, every effort has been made to reduce the acquisition of forest area.

Water Bodies: The proposed alignment has been fixed taking due consideration & importance of retaining the existing water bodies as far as feasible.

Railway Crossings and Important Structures: The components which increases the project cost are the presence of the Major bridges, ROBs and other structures. In order to reduce the project cost number of structures and its length were given due consideration while finalising the alignment.


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Alternative Option Analysis

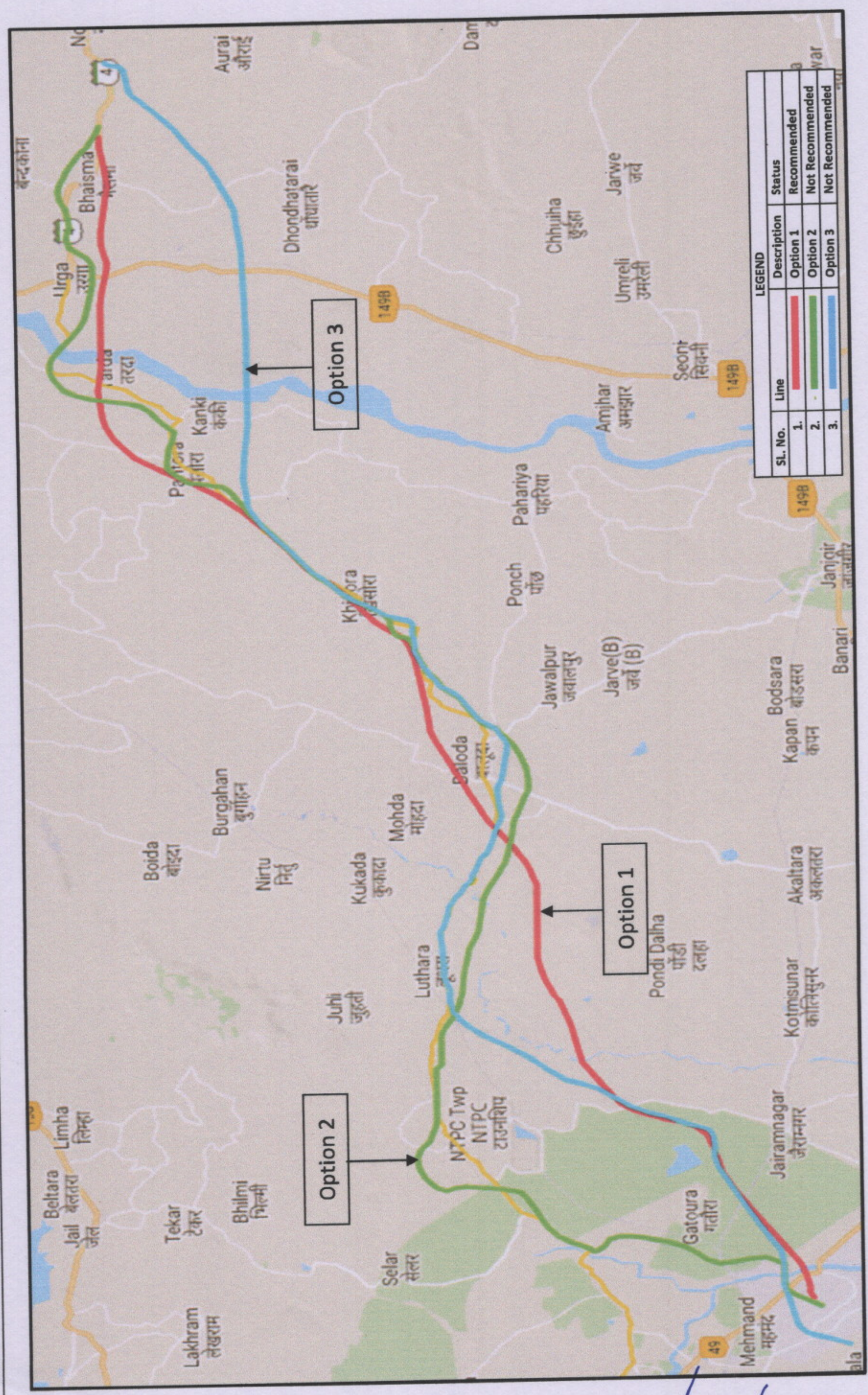


Figure- Map showing all the alternatives

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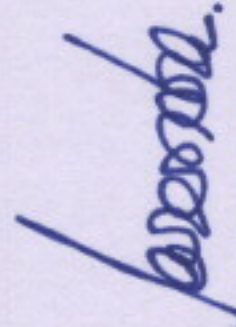
The comparative statement for proposed alignment is given in below table:

S. No	Description	Option I	Option II	Option III
1.	Length (Km.)	70.2	84.6	80.5
2.	Start point	Alignment starts at Junction with NH-130 & NH-130A, near Nehru Chowk, Bilaspur	Alignment starts at Junction with NH-130 & NH-130A, near Nehru Chowk, Bilaspur	Alignment starts near Silpahri Village, Bilaspur
3.	End point	Alignment terminates at Junction with NH-149B & SH-4 near Urga Village.	Alignment terminates at Junction with NH-149B & SH-4 near Urga Village.	Alignment terminates at Junction with NH-149B & SH-4 near Urga Village.
4.	Districts	Bilaspur, Janjgir Champa and Korba	Bilaspur, Janjgir Champa and Korba	Bilaspur, Janjgir Champa and Korba
5.	Connecting Highways	NH200 SH4, SH9	NH200 SH4, SH9	NH200 SH4, SH9
6.	Lane Configuration	4 lane		
7.	Proposed Right of Way (m)	70	70	70
8.	Ex. Right of Way (m)	0, as it is a greenfield alignment	0, as it is a greenfield alignment	0, as it is a greenfield alignment
9.	Approx Travel Time (Hrs,Mins)	2 hrs	2 hrs 20 Mins	2 hrs 10 Mins
10.	No of NH crossings	1	1	1
11.	No of SH crossings	2	2	2
12.	Features	Underpasses 20 ROB 2 Major Bridge 3 Minor Bridge 2 3 Rivers and 2 Canals	Underpasses 37 ROB 2 Major Bridge 4 Minor Bridge 7 3 Rivers and 2 Canals	Underpasses 39 ROB 2 Major Bridge 4 Minor Bridge 6 3 Rivers and 2 Canals
13.	Number of settlements shall be affected	8	30	20
14.	Length of proposed road along the settlements (Km.)	0.698	4.372	6.403
15.	Affected Forest Area (Ha)	41	41	45
16.	Land Acquisition (Ha)	409	592.2	563.5
17.	Land Acquisition Cost (Cr.)	246	356.2	339

S. No	Description	Option I	Option II	Option III
18.	Eco-sensitive/Protected Area	None	None	None
19.	Merits	1. Major part of the alignment passing through the agricultural and barren land with patches of Forest		
		2. No ESZ areas in the RoW		
		3. The forest area is less than Option 3.	3. The forest area is less than Option 3.	
		4. Least Pollution Envisaged		
		5. Shortest Distance. Hence least time required for commuting.		
		6. Least land to be Acquired		
		7. Least number of settlements to be affected		
		8. Least number of Sensitive Features		
20.	Demerits			1. Maximum number of Sensitive Features
			3. Maximum Land to be acquired	2. Maximum forest Area
				4. Maximum Settlements to be affected.

Option I is best suitable due to following reasons:-

- Major part of the alignment Passing through the agricultural and barren land with patches of Forest
- No ESZ areas in the RoW
- Least forest area involved
- Shortest Distance. Hence least time required for commuting
- Least land to be acquired
- Least number of settlements to be affected
- Least number of Sensitive Features


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